AMENDMENTS TO THE CLAIMS

Claims 1-24 (Canceled).

25. (Original) A source beam assembly comprising a beam generation module which during operation delivers an output beam that includes a first beam at a first frequency and a second beam at a second frequency that is different from said first frequency, said first and second beams within the output beam being coextensive, said beam generation module including a beam conditioner which during operation introduces a sequence of different shifts in a selected parameter of each of the first and second beams, said selected parameter selected from a group consisting of phase and frequency.

26. (Original) The source beam assembly of claim 25 wherein said first beam includes a first component and a second component that is orthogonal to the first component and said second beam also includes a first component and a second component that is orthogonal to the first component, and wherein the beam conditioner is constructed to introduce a first sequence of different discrete phase shifts into a relative phase difference between the first and second components of the first beam and concurrently therewith a second sequence of different discrete phase shifts into the relative phase difference between the first and second components of the second beam.

27. (Original) The source beam assembly of claim 26 wherein the beam conditioner includes a first phase shifter for introducing the first sequence of different discrete phase shifts into the relative phase difference between the first and second components of the first beam and a second phase shifter for introducing the second sequence of different discrete phase shifts into the relative phase difference between the first and second components of the second beam.

28. (Original) The source beam assembly of claim 25 wherein the beam conditioner is constructed to introduce a first sequence of different frequency shifts into the frequency of the first beam and concurrently therewith a second sequence of different frequency shifts into the frequency of the second beam.

Claims 29-37 (Canceled).

38. (Original) A method of generating an source beam, said method comprising:

generating an output beam that includes a first beam at a first frequency and a second beam at a second frequency that is different from said first frequency, said first and second beams within the output beam being coextensive; and

introducing a sequence of different shifts in a selected parameter of each of the first and second beams, said selected parameter selected from a group consisting of phase and frequency.

Claims 39-48 (Canceled).

49. (New) The source beam assembly of claim 25 wherein the beam generation module further comprises a beam source which during operation generates a single input beam at a predetermined frequency, and wherein the beam conditioner comprises an optical element that derives the first and second beams from the single input beam.

50. (New) The source beam assembly of claim 49 wherein said optical element is an acousto-optic modulator.

51. (New) The source beam assembly of claim 28 wherein the beam conditioner includes a first set of acousto-optic modulators for introducing the first sequence of different frequency shifts into the frequency of the first beam and a second set of acousto-optic modulators for introducing the second sequence of different frequency shifts into the frequency of the second beam.

52. (New) The source beam assembly of claim 25 further comprising a controller which controls the beam conditioner and causes said beam conditioner to introduce the first and second sequences of different shifts in the selected parameter of each of the first and second beams.

53. (New) The method of claim 38 wherein each of said first and second beams includes a first component and a second component that is orthogonal to the first component, and wherein introducing a sequence of different shifts involves introducing a first sequence of different discrete phase shifts into a relative phase difference between the first and second components of the first beam and concurrently therewith a second sequence of different discrete phase shifts into the relative phase difference between the first and second components of the second beam.

54. (New) The method of claim 38 wherein introducing a sequence of different shifts involves introducing a first sequence of different frequency shifts into the frequency of the first beam and concurrently therewith a second sequence of different frequency shifts into the frequency of the second beam.